

ANALYTICAL REPORT

PROJECT NO. 14948701

MIAMI FORT LLHG 2009

Lot #: A9I030312

Sue Wallace

Duke Energy Corporation
PO Box 5385
Cincinnati, OH 45201

TESTAMERICA LABORATORIES, INC.



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Approved for release.
Kenneth J. Kuzior
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9/16/2009 3:41 PM

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CASE NARRATIVE

A9I030312

The following report contains the analytical results for ten water samples and one quality control sample submitted to TestAmerica North Canton by Cinergy from the Miami Fort LLHG 2009 Site, project number 14948701. The samples were received September 03, 2009, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Candance Bonham, Mike Wagner, and Sue Wallace on September 11, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Kenneth J. Kuzior, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 19.9°C. The samples were received in wet ice.

CASE NARRATIVE (continued)

SAMPLE RECEIVING

See TestAmerica's Cooler Receipt Form for additional information.

METALS

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for 608WWT due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for batch(es) 9247255 due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

<u>Volatile (GC or GC/MS)</u>	<u>Semivolatile (GC/MS)</u>	<u>Metals ICP-MS</u>	<u>Metals ICP Trace</u>
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.



TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada
(#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190), NAVY,
ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A9I030312

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
601(7)WWT 09/01/09 17:10 001				
Mercury	58.2	2.0	ug/L	SW846 7470A
601(8)WWT 09/01/09 17:15 002				
Mercury	172	4.0	ug/L	SW846 7470A
RI 09/01/09 17:35 004				
Mercury	2.0	0.50	ng/L	CFR136A 1631E
608WWT FB 09/02/09 06:30 005				
Mercury	0.72	0.50	ng/L	CFR136A 1631E
608WWT 09/02/09 06:40 006				
Mercury	63.4	5.0	ng/L	CFR136A 1631E
608WWT DUP 09/02/09 06:45 007				
Mercury	62.2	5.0	ng/L	CFR136A 1631E
OUTFALL 002 09/02/09 07:20 009				
Mercury	2.5	0.50	ng/L	CFR136A 1631E
OUTFALL 002 DUP 09/02/09 07:25 010				
Mercury	2.4	0.50	ng/L	CFR136A 1631E

ANALYTICAL METHODS SUMMARY

A9I030312

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Mercury, Low Level Mercury, CVA Fluorescence	CFR136A 1631E

References:

- CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A9I030312

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LKAP8	001	601(7)WWT	09/01/09	17:10
LKAQC	002	601(8)WWT	09/01/09	17:15
LKAQD	003	RIFB	09/01/09	17:30
LKAQG	004	RI	09/01/09	17:35
LKAQJ	005	608WWT FB	09/02/09	06:30
LKAQM	006	608WWT	09/02/09	06:40
LKAQR	007	608WWT DUP	09/02/09	06:45
LKAQV	008	OUTFALL 002 FB	09/02/09	07:10
LKAQ1	009	OUTFALL 002	09/02/09	07:20
LKAQ3	010	OUTFALL 002 DUP	09/02/09	07:25
LKAQ7	011	TRIP BLANK	09/02/09	

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Duke Energy Corporation

Client Sample ID: 601(7)WWT

TOTAL Metals

Lot-Sample #...: A9I030312-001

Matrix.....: WG

Date Sampled...: 09/01/09 17:10 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9247017						
Mercury	58.2	2.0	ug/L	SW846 7470A	09/04/09	LKAP81AA

Dilution Factor: 10

Duke Energy Corporation

Client Sample ID: 601(8)WWT

TOTAL Metals

Lot-Sample #...: A9I030312-002

Matrix.....: WG

Date Sampled...: 09/01/09 17:15 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9247017						
Mercury	172	4.0	ug/L	SW846 7470A	09/04/09	LKAQC1AA

Dilution Factor: 20

Duke Energy Corporation

Client Sample ID: RIFB

TOTAL Metals

Lot-Sample #...: A9I030312-003

Matrix.....: WQ

Date Sampled...: 09/01/09 17:30 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9247255						
Mercury	ND	0.50	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQD1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: RI

TOTAL Metals

Lot-Sample #...: A9I030312-004

Matrix.....: WG

Date Sampled...: 09/01/09 17:35 Date Received...: 09/03/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9247255						
Mercury	2.0	0.50	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQG1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: 608WWT FB

TOTAL Metals

Lot-Sample #...: A9I030312-005

Matrix.....: WQ

Date Sampled...: 09/02/09 06:30 Date Received...: 09/03/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9247255						
Mercury	0.72	0.50	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQJ1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: 608WWT

TOTAL Metals

Lot-Sample #...: A9I030312-006

Matrix.....: WG

Date Sampled...: 09/02/09 06:40 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9247255						
Mercury	63.4	5.0	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQM1AA

Dilution Factor: 10

Duke Energy Corporation

Client Sample ID: 608WWT DUP

TOTAL Metals

Lot-Sample #...: A9I030312-007

Matrix.....: WG

Date Sampled...: 09/02/09 06:45 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9247255						
Mercury	62.2	5.0	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQR1AA

Dilution Factor: 10

Duke Energy Corporation

Client Sample ID: OUTFALL 002 FB

TOTAL Metals

Lot-Sample #...: A9I030312-008

Matrix.....: WQ

Date Sampled...: 09/02/09 07:10 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9247255						
Mercury	ND	0.50	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQV1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002

TOTAL Metals

Lot-Sample #...: A9I030312-009

Matrix.....: WG

Date Sampled...: 09/02/09 07:20 Date Received...: 09/03/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9247255						
Mercury	2.5	0.50	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQ11AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 DUP

TOTAL Metals

Lot-Sample #...: A9I030312-010

Matrix.....: WG

Date Sampled...: 09/02/09 07:25 Date Received...: 09/03/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	9247255					
Mercury	2.4	0.50	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQ31AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: TRIP BLANK

TOTAL Metals

Lot-Sample #...: A9I030312-011

Matrix.....: WQ

Date Sampled...: 09/02/09

Date Received...: 09/03/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9247255						
Mercury	ND	0.50	ng/L	CFR136A 1631E	09/04-09/10/09	LKAQ71AA
		Dilution Factor: 1				

QUALITY CONTROL SECTION

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A9I030312

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A9I040000-017 Prep Batch #... : 9247017						
Mercury	ND	0.20	ug/L	SW846 7470A	09/04/09	LKA2F1AU
Dilution Factor: 1						

MB Lot-Sample #: A9I040000-255 Prep Batch #... : 9247255						
Mercury	ND	0.50	ng/L	CFR136A 1631E	09/04-09/08/09	LKCR91AA
Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9I030312

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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LCS Lot-Sample#: A9I040000-017 Prep Batch #...: 9247017

Mercury	96	(81 - 123)	SW846 7470A	09/04/09	LKA2F1A5
Dilution Factor: 1					

LCS Lot-Sample#: A9I040000-255 Prep Batch #...: 9247255

Mercury	86	(77 - 125)	CFR136A 1631E	09/04-09/08/09	LKCR91AC
Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9I030312

Matrix.....: WATER

Date Sampled...: 09/02/09 06:00 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>RPD</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MS Lot-Sample #: A9I030168-001 Prep Batch #... : 9247017						
Mercury	105	(69 - 134)		SW846 7470A	09/04/09	LJ9JT1A9
	101	(69 - 134)	3.8 (0-20)	SW846 7470A	09/04/09	LJ9JT1CA
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9I030312

Matrix.....: WATER

Date Sampled...: 09/02/09 08:55 Date Received...: 09/02/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A9I020252-002 Prep Batch #... : 9247255							
Mercury	NC,MSB	(71 - 125)			CFR136A 1631E	09/04-09/10/09	LJ73D1AC
	NC,MSB	(71 - 125)		(0-24)	CFR136A 1631E	09/04-09/10/09	LJ73D1AD
Dilution Factor: 20							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9I030312

Matrix.....: WG

Date Sampled...: 09/02/09 06:40 Date Received...: 09/03/09

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>RPD</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MS Lot-Sample #: A9I030312-006 Prep Batch #... : 9247255						
Mercury	NC,MSB	(71 - 125)		CFR136A 1631E	09/04-09/10/09	LKAQM1AC
	NC,MSB	(71 - 125)	(0-24)	CFR136A 1631E	09/04-09/10/09	LKAQM1AD
Dilution Factor: 10						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:

Regulatory program:

☐ DW

☐ NPDES

☐ RCRA

☐ Other

Client Contact

Company Name:

Duke Energy

Client Project Manager:

Mike Wagner (URS Corp)

Site Contact:

Shawn Becker

Lab Contact:

Telephone:

COC No:

1 of 2 COCs

TestAmerica Laboratories, Inc.

Address:

Miami Test Station

Telephone:

(513) 651-3440

Telephone:

(513) 651-3440

Telephone:

Analyses

COC No:

1 of 2 COCs

TestAmerica Laboratories, Inc.

City/State/Zip:

North Bend, OH

Email:

mike-wagner@urscorp.com

Phone:

(513) 651-3440

Project Name:

50E-Wallace @ Duke-Energy.com

Method of Shipment/Carrier:

Common

Shipping/Tracking No:

1448761

Project Number:

1448761

Sample Identification

Sample Date

Sample Time

Air

Aqueous

Sediment

Solid

Other:

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Unpres

Other:

Sample Specific Notes / Special Instructions:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client

Disposal By Lab

Archive For

Months

Relinquished by:

Relinquished by:

Company:

Company:

Date/Time:

Date/Time:

Company:

Company:

Date/Time:

Date/Time:

Company:

Company:

Date/Time:

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:

Regulatory program:

☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact

Company Name:

Duke Energy

Client Project Manager:
Mike Wagner (URS Corp)

Site Contact:
Steven Becker

Lab Contact:

COG No:

Address:

Miami Fort Station

Telephone:

Telephone:

Telephone:

City/State/Zip:

(513) 651-3440

(513) 651-3440

2 of 2 COCs

Phone:

mike.wagner@urscorp.com

TAT if different from below: Standard

Analyses

Project Name:

Site-Walker @ Duke-Energy.com

Method of Shipment/Carrier:

Shipping/Tracking No:

Project Number:

14948701

Carrier

11 kg (1631)

P.O. #

Sample Date

Sample Time

Air

Aqueous

Sediment

Solid

Other:

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Unpres

Other:

1 day

2 days

1 week

2 weeks

3 weeks

Sample Specific Notes / Special Instructions:

Sample Identification

Sample Date

Sample Time

Air

Aqueous

Sediment

Solid

Other:

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Unpres

Other:

1 day

2 days

1 week

2 weeks

3 weeks

Sample Specific Notes / Special Instructions:

Top Black

Sample Date

Sample Time

Air

Aqueous

Sediment

Solid

Other:

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Unpres

Other:

1 day

2 days

1 week

2 weeks

3 weeks

Sample Specific Notes / Special Instructions:

Possible Hazard Identification

☒ Non-Hazard

☐ Flammable

☐ Skin Irritant

☐ Poison B

☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client

☒ Disposal By Lab

☐ Archive For

Months

Special Instructions/OC Requirements & Comments:

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

TestAmerica Cooler Receipt Form/Narrative

 Lot Number: A91030812
North Canton Facility

 Client Duke Energy Project _____ By: [Signature]
 Cooler Received on 9/3/09 Opened on 9/3/09 (Signature)

 FedEx ☐ UPS ☐ DHL ☐ FAS ☐ Stetson ☒ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
 TestAmerica Cooler # TA1003 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☐ No ☒ Intact? Yes ☐ No ☐ NA ☒
 If YES, Quantity _____ Quantity Unsalvageable _____
 Were custody seals on the outside of cooler(s) signed and dated? Yes ☐ No ☐ NA ☒
 Were custody seals on the bottle(s)? Yes ☐ No ☒
 If YES, are there any exceptions? _____
 2. Shippers' packing slip attached to the cooler(s)? Yes ☐ No ☒
 3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
 4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
 5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other _____
 6. Cooler temperature upon receipt 19.9 °C / See back of form for multiple coolers/temps ☐
 METHOD: IR ☒ Other ☐
 COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
 7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
 8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
 9. Were sample(s) at the correct pH upon receipt? Yes ☒ No ☐ NA ☒ am 9/3/09
 10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
 11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
 12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
 13. Was a trip blank present in the cooler(s)? Yes ☐ No ☒ Were VOAs on the COC? Yes ☐ No ☒
- Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
 Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

High Temp - No Coolant. okay for metals
Received Trip Blank not on COC. am 9/3/09
Hg not pres below 2 in recing - lab to further pres
am 9/3/09

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample
 Receiving to meet recommended pH level(s). Nitric Acid Lot# 031909-HNO₃; Sulfuric Acid Lot# 100108-H₂SO₄; Sodium
 Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 050205-
 (CH₃COO)₂ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
<u>601(7)</u>	<u>≈ 6</u>	<u>9/3/09</u>	<u>am/am</u>
<u>601(8)</u>	<u>≈ 6</u>	<u>9/3/09</u>	<u>am/am</u>

[illegible][illegible]

END OF REPORT